

## **CLAIMS**

What is claimed is:

- 1 1. A method comprising:  
2 storing native code associated with a first method within a native code space;  
3 determining whether said native code space exceeds a threshold in response to an  
4 invocation of a second method; and  
5 reclaiming said native code associated with said first method and compiling byte code  
6 into native code associated with said second method in response to said determination.
- 1 2. The method as set forth in claim 2, wherein reclaiming said native code associated  
2 with said first method and compiling byte code into native code associated with said second  
3 method in response to said determination comprises reclaiming said native code associated  
4 with said first method in response to a determination that said native code space exceeds said  
5 threshold.
- 1 3. The method as set forth in claim 2, further comprising storing said native code  
2 associated with said second method within said native code space in response to said  
3 compilation.
- 1 4. The method as set forth in claim 2, further comprising:  
2 invoking said first method following said reclamation; and

3 re-compiling byte code into said native code associated with said first method in  
4 response to said invocation of said first method.

1 5. The method as set forth in claim 2, wherein reclaiming said native code associated  
2 with said first method and compiling byte code into native code associated with said second  
3 method in response to said determination comprises compiling byte code into native code  
4 associated with said second method utilizing a JAVA virtual machine.

1 6. The method as set forth in claim 5, wherein compiling byte code into native code  
2 associated with said second method utilizing a JAVA virtual machine comprises compiling  
3 byte code into native code associated with said second method utilizing a just-in-time  
4 compiler.

1 7. The method as set forth in claim 2, wherein reclaiming said native code associated  
2 with said first method and compiling byte code into native code associated with said second  
3 method in response to said determination comprises:  
4 determining whether said first method is active or inactive; and  
5 reclaiming said native code associated with said first method in response to a  
6 determination that said first method is inactive.

1 8. The method as set forth in claim 7, wherein:  
2 reclaiming said native code associated with said first method and compiling byte code  
3 into native code associated with said second method in response to said determination further

4 comprises determining whether said first method is hot or cold in response to a determination  
5 that said first method is inactive, and  
6 reclaiming said native code associated with said first method in response to a  
7 determination that said first method is inactive comprises reclaiming said native code  
8 associated with said first method in response to a determination that said first method is cold.

1 9. A data processing system-readable medium having a plurality of instructions  
2 executable by a data processing system embodied therein, wherein said plurality of  
3 instructions when executed cause said data processing system to perform operations  
4 comprising:  
5 storing native code associated with a first method within a native code space;  
6 determining whether said native code space exceeds a threshold in response to an  
7 invocation of a second method; and  
8 reclaiming said native code associated with said first method and compiling byte code  
9 into native code associated with said second method in response to said determination.

1 10. The data processing system-readable medium of claim 9, wherein reclaiming said  
2 native code associated with said first method and compiling byte code into native code  
3 associated with said second method in response to said determination comprises reclaiming  
4 said native code associated with said first method in response to a determination that said  
5 native code space exceeds said threshold.

1 11. The data processing system-readable medium of claim 9, wherein said plurality of  
2 instructions when executed further cause said data processing system to perform operations

3 comprising storing said native code associated with said second method within said native  
4 code space in response to said compilation.

1 12. The data processing system-readable medium of claim 9, wherein said plurality of  
2 instructions when executed further cause said data processing system to perform operations  
3 comprising invoking said first method following said reclamation; and re-compiling byte  
4 code into said native code associated with said first method in response to said invocation of  
5 said first method.

1 13. The data processing system-readable medium of claim 9, wherein reclaiming said  
2 native code associated with said first method and compiling byte code into native code  
3 associated with said second method in response to said determination comprises compiling  
4 byte code into native code associated with said second method utilizing a JAVA virtual  
5 machine.

1 14. The data processing system-readable medium of claim 13, wherein compiling byte  
2 code into native code associated with said second method utilizing a JAVA virtual machine  
3 comprises compiling byte code into native code associated with said second method utilizing  
4 a just-in-time compiler.

1 15. The data processing system-readable medium of claim 9, wherein reclaiming said  
2 native code associated with said first method and compiling byte code into native code  
3 associated with said second method in response to said determination comprises:  
4 determining whether said first method is active or inactive; and

reclaiming said native code associated with said first method in response to a determination that said first method is inactive.

16. The data processing system-readable medium of claim 15, wherein:

reclaiming said native code associated with said first method and compiling byte code into native code associated with said second method in response to said determination further comprises determining whether said first method is hot or cold, and

reclaiming said native code associated with said first method in response to a determination that said first method is inactive comprises reclaiming said native code associated with said first method in response to a determination that said first method is cold.

17. A data processing system comprising:

a processor to process data and execute instructions;

a memory to store data including a plurality of instructions which when executed by said processor cause said data processing system to perform operations comprising:

storing native code associated with a first method within a native code space of said memory;

determining whether said native code space exceeds a threshold in response to an invocation of a second method; and

reclaiming said native code associated with said first method and compiling byte code into native code associated with said second method in response to said determination.

18. The data processing system of claim 17, wherein reclaiming said native code

associated with said first method and compiling byte code into native code associated with

3 said second method in response to said determination comprises reclaiming said native code  
 4 associated with said first method in response to a determination that said native code space  
 5 exceeds said threshold.

1 19. The data processing system of claim 17, wherein said plurality of instructions when  
 2 executed further cause said data processing system to perform operations comprising storing  
 3 said native code associated with said second method within said native code space in  
 4 response to said compilation.

1 20. The data processing system of claim 17, wherein said plurality of instructions when  
 2 executed further cause said data processing system to perform operations comprising  
 3 invoking said first method following said reclamation; and re-compiling byte code into said  
 4 native code associated with said first method in response to said invocation of said first  
 5 method.

1 21. The data processing system of claim 17, wherein reclaiming said native code  
 2 associated with said first method and compiling byte code into native code associated with  
 3 said second method in response to said determination comprises compiling byte code into  
 4 native code associated with said second method utilizing a JAVA virtual machine.

1 22. The data processing system of claim 21, wherein compiling byte code into native  
 2 code associated with said second method utilizing a JAVA virtual machine comprises  
 3 compiling byte code into native code associated with said second method utilizing a just-in-  
 4 time compiler.

1 23. The data processing system of claim 17, wherein reclaiming said native code  
2 associated with said first method and compiling byte code into native code associated with  
3 said second method in response to said determination comprises:  
4 determining whether said first method is active or inactive; and  
5 reclaiming said native code associated with said first method in response to a  
6 determination that said first method is inactive.

1 24. The data processing system of claim 23, wherein:  
2 reclaiming said native code associated with said first method and compiling byte code  
3 into native code associated with said second method in response to said determination further  
4 comprises determining whether said first method is hot or cold, and  
5 reclaiming said native code associated with said first method in response to a  
6 determination that said first method is inactive comprises reclaiming said native code  
7 associated with said first method in response to a determination that said first method is cold.